

+

+

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

FEB 02 2004

Complete if Known

(use as many sheets as necessary)

Sheet

of

Application Number

10/658.569

Filing Date

September 9, 2003

First Named Inventor

Emanuel, George

Group Art Unit

3752

Examiner Name

Unassigned

Attorney Docket Number

KSY 02655 PTUS

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

**Examiner
Signature**

Date
Considered

5/8/06

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.

+

Please type a plus sign (+) inside this box → ☐



PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no person is required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

of

Complete if Known

Application Number	10/658,569
Filing Date	September 9, 2003
First Named Inventor	Emanuel, George
Group Art Unit	3752
Examiner Name	Unassigned
Attorney Docket Number	KSY 02655 PTUS

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
[Signature]		AIAA 94-2416, "Historical Perspectives of the Chemical Oxygen - Iodine Laser (COIL)," by P.V. Avizonis & K.A. Truesdell, 25 th AIAA Plasmadynamics and Lasers Conference, June 20-23, 1994, Colorado Springs, CO	
		AIAA 94-2421, "COIL Development in the USA" by K.A. Truesdell, C.A. Helms & G.D. Hager, 25 th AIAA Plasmadynamics and Lasers Conference, June 20-23, 1994, Colorado Springs, CO	
		AIAA 2000-2425, "High Mach Number, High Pressure Recovery COIL Nozzle Aerodynamic Experiments" by T.T. Yan, R.A. Dickerson, L.F. Moon & Y.C. Hsia, 31 st AIAA Plasmadynamics and Lasers Conference, June 19-22, 2000, Denver, CO	
		"Gas, Chemical and Electrical Lasers and Intense Beam Control and Applications," by Santanu Basu, Steven J. Davis & Ernest A. Dorko, Proceedings of SPIE, January 24-25, 2000, San Jose, CA	
		"Computational Analysis of the Transonic Flow Field of Two-Dimensional Minimum Length Nozzles" by B.M. Argrow & G. Emanuel, <i>Journal of Fluids Engineering</i> , September 1991, Vol. 113	
		"Performance of an Aerospace Plane Propulsion Nozzle" by Y.Y. Bae & G. Emanuel, <i>Journal of Aircraft</i> , Vol. 28, Number 2, February 1991	
		"Comparison of Minimum Length Nozzles" by B.M. Argrow & G. Emanuel, <i>Journal of Fluids Engineering</i> , September 1998, Vol. 110	
		"Design of Nozzle Contraction for Uniform Sonic Throat Flow", T.-L. Ho & G. Emanuel, <i>AIAA Journal</i> , Vol. 28, No. 4 Technical Notes	
		"Gasdynamics: Theory and Applications" By George Emanuel, <i>AIAA Education Series</i> , 1986.	
		Handbook of Chemical Lasers, Ch. 5 "Gas Dynamics of Supersonic Mixing Lasers," G. Grohs & G. Emanuel, TRW Systems Group, 1976	
[Signature]		Analytical Fluid Dynamics, Second Edition, George Emanuel, Professor, Department of Mechanical and Aerospace Engineering, University of Texas, Arlington, dated 2001	

Examiner Signature	[Signature]	Date Considered	5/8/06
--------------------	-------------	-----------------	--------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.